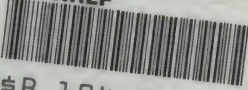


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AN INTRODUCTION TO ELEMENTARY ACCOUNTING

BY

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PROGRAM OF ASSIGNMENTS

FOR COMPLETING

LITTLETON'S INTRODUCTION TO ELEMENTARY ACCOUNTING.

CORRELATING IT WITH

20TH CENTURY BOOKKEEPING AND ACCOUNTING.

This program is followed in the elementary accounting classes in the State University of Illinois.

Accountancy 1a

QUIZ ASSIGNMENTS

- 1—Introduction to Elementary Accounting. Chap. I—The Purpose of Accounting.
- 2—Introduction—Chap. II—The Transaction.
- 3—Review first two chapters; discuss the problems worked in practice class.
- 4—Introduction, Chap. III—The Ledger.
- 5—Oral analysis and recitations on problems from Chap. III and others to be stated by the instructor.
- 6—Introduction, Chap. IV—Trial Balance and Statements.
- 7—(a) Introduction, Chap. V—Personal accounts and the Journal.
(b) 20th Century text pp. 30-33.
- 8—(a) Introduction, Chap. VI—Special Books of Original Entry.
(b) 20th Cent. text, pp. 34-42.
- 9—Study Jan. transactions in advance at home and recite on them in quiz class.
- 10—(a) Introduction, Chap. VII—Direct Ledger Closing.
(b) Compare with explanation and illustration in appendix of 20th Century text.
- 11—Introduction, problems from Chap. VII.
- 12—One-hour written quiz.
- 13—Study Feb. transactions in advance at home and recite thereon in class.
- 14—(a) Introduction, Chap. VIII—Journal Closing.
(b) Compare with explanations and illustrations pp. 67-70 of 20th Cent. text.
(Concluded on next page)

PRACTICE ASSIGNMENTS

- 1—Problems from Chap. I.
- 2—Problems 1 and 2 from Chap. II.
- 3—(a) Problem 3, from Chap. II.
(b) Follow instruction for problem 2, Chap. II, using the data in Exercise 24, p. 44 of 20th Century text.
- 4—Problems from Chap. III.
- 5—Follow instructions in problem 1, of Chap. III, but use the transactions in the following Ex. in 20th Century text—Ex. 3-5-9-11-15-18.
- 6—Problems from Chap. IV.
- 7—(a) Problems from Chap. V.
(b) Journal Entries for Exercise 25, p. 45 of 20th Cent. text.
- 8—Begin Set I; go as far as Jan. 12.
- 9—Continue Set I, to Jan. 24.
- 10—(a) Finish Jan. transactions and post.
(b) Jan. Trial Balance.
- 11—Jan. Statements and closing of Set I.
- 12—Two-hour problem quiz.
- 13—Set I to Feb. 24. The instructor will advise as to abbreviating the clerical work in the Sales Book.
- 14—Finish Feb. entries, posting and Trial Balance.
(Concluded on next page)

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A. C. LITTLETON

I

PURPOSE OF ACCOUNTING

We may study accounting intending to follow it as a profession or to use it as a stepping stone to other things in business, or we may study it in order as superintendents, managers, proprietors, to use intelligently the accounting results which others will furnish us. But whether we expect to "keep books" or to have them kept for us, it is highly necessary to understand thoroughly the language and methods of accounting.

Financial Condition. Accounting has for its principal aim the presentation of the vital facts concerning the *financial condition and progress of a business*. One of the most important documents containing vital business facts that is placed before the business executive or proprietor is the statement of his financial condition, called the Balance Sheet. Herein is a tabulation of all he possesses in the way of *business property* and of any *claims* there may be against that property.

If the proprietor owns all the property he holds, the statement is as follows: *

BALANCE SHEET—H. R. WELLS

Property Possessed		Claims Against Property	
Cash	\$ 7,000		
Land & Bldg.....	9,000		
Furniture	800		
Delivery Car.....	1,500	H. R. Wells, Propr.....	\$18,300
	<hr/>		<hr/>
	\$18,300		\$18,300

If, however, Mr. Wells holds an automobile delivery car worth \$1,500, but has paid only \$1,000 on it, some one else (the seller) has a legal claim against the car until the \$500 is paid as well. Indeed, the seller would have a claim against any or all of the property up to the amount of the unpaid debt. In order to present the true con-

dition under these circumstances, the statement will have to be as follows:

BALANCE SHEET—H. R. WELLS

Property		Claims	
Cash	\$ 7,000	Blank Auto Co.....	\$ 500
Land & Bldg.....	9,000		
Furniture	800	H. R. Wells, Propr.....	17,800
Delivery Car.....	1,500		
	<hr/>		<hr/>
	\$18,300		\$18,300

The above statement clearly shows that the proprietor claims whatever portion of the property is *not claimed* by outsiders. In fact, one of the great services of this statement of financial condition is to show the value of the proprietor's interest in the property. This value (often called Present Worth or Net Worth) is the difference between the total property and the total of claims by persons *outside* the business. It is to be noted as a result of this principle that the total of the claims column in the Balance Sheet will always be equal to the total of the property column.

Business on Credit. We have seen that the unpaid portion of the automobile's purchase price constitutes a debt to be paid later, and gives the seller, who trusted Mr. Wells, a claim against the latter's property until the obligation is discharged by payment. We must see, also, that Mr. Wells may sell as well as buy on credit (i. e., on trust). Assuming that he has done so, and that certain persons owe him \$2,200 for goods sold them, then the Balance Sheet would be as follows:

BALANCE SHEET—H. R. WELLS

Property		Claims	
Cash	\$ 7,000	Debts Payable.....	\$ 500
Debts Receivable.....	2,200		
Land & Bldg.....	9,000	H. R. Wells, Propr.....	20,000
Furniture	800		
Delivery Car.....	1,500		
	<hr/>		<hr/>
	\$20,500		\$20,500

Two points are to be noticed in this last statement. Under the new conditions, there was total property of \$20,500, and there were claims by outsiders of \$500, leaving \$20,000 as the Present Worth of the business. Then there is introduced the terms Debts Receivable

and Debts Payable.* They are easily explained. If we sell on credit, the transaction gives rise to a debt which is *receivable* by us in cash at some later date; if we buy on credit, the transaction gives rise to a debt *payable* by us at some later date.

The fact that Mr. Wells owes for part of his delivery car leads to the suggestion that the statement would be more interesting to the proprietor if the names of the people owed were shown. It is important that he know to whom he owes money, as well as to know the total amount; it is equally important to know from whom to expect payments, as well as to know the total owed to him. Another revision will therefore be made in the Balance Sheet:

BALANCE SHEET—H. R. WELLS

Property		Claims	
Cash	\$ 7,000	Debts Payable:	
Debts Receivable:		Blank Auto Co.....	\$ 500
M. Y. Jones.....	\$1,700		
P. J. Frank.....	500		
2,200			
Land & Bldgs.....	9,000		
Furniture	800		
Delivery Car.....	1,500	H. R. Wells, Propr.....	20,000
	<u>\$20,500</u>		<u>\$20,500</u>

Use of the Balance Sheet. With this statement before him, the Proprietor can view his business in perspective, so to speak. He can see how his property is divided between Cash, Debts, Land, Furniture, etc.; how outsiders have claims against a part of his property; how much property is free from outside claims, and therefore is his own. Because this statement shows the business man just *how he stands financially*, it is regarded as a very important document. Without knowing periodically just how he stands, the business man runs grave risks in undertaking large purchases or in incurring large debts. Should he buy beyond his ability to pay he would soon fail in business. He would be wise to look over his statement before buying heavily, and consider the debts he already has, and the extent of the property at hand that could be used in paying them or any new ones.

Profit and Loss. There is another statement the business man likes to have presented periodically; one that permits him to see the Profits or the Losses the business has experienced.

*The terms here used will be replaced at the proper time by a more technical phraseology.

Profit comes to the merchant in buying at one price and selling at a higher. The man who deals in large ventures, like buying and selling residence and business real estate, may calculate his profits on each transaction. His statement of profits and losses might be as follows:

Sold 5th Street Property for.....	\$10,000	
Fifth Street Property cost.....	<u>7,000</u>	
Profit		\$3,000
Sold 7th Street Property for.....	8,000	
Seventh Street Property cost.....	<u>6,000</u>	
Profit		2,000
Total Profits.....		<u>\$5,000</u>

But the retail merchant selling clothing, groceries, or hardware can not follow the real estate man's example. The retailer buys many small and different articles, and sells them, generally, one by one. He can not hope to keep records so that he could calculate the profit on each separate article sold. So his Profit and Loss Statement must consist of totals instead of details. If, in a given period, he sells goods to the total value (at selling price) of, say, \$7,000, and finds that these goods cost \$4,000 when purchased, there is a difference of \$3,000, which is profit. In statement form the facts would be arranged thus:

STATEMENT OF PROFIT AND LOSS

Total Sales.....	\$7,000
Total Cost of Purchases*.....	<u>4,000</u>
Difference, Profit.....	\$3,000

Stated in another way, Profit is the portion of the sales price remaining after the purchase cost has been recovered. When some one buys of us \$7,000 worth of merchandise, he is *repaying* us what we paid for the articles and *something more*—a profit for the service we render him in supplying the goods.

Expense. If the proprietor employs a clerk to wait upon customers, the selling price of goods must be sufficient to repay the proprietor not only the cost of the goods themselves, but the clerk's

*The assumption is here made that all of the goods bought have been sold; later the case will be considered in which all of the purchases are not sold.

wages also, before there can be any profit. Rent of store would be like wages in this respect. The proprietor pays Rent and Wages, perhaps, before any sale is made. He must get back *from the customers* enough to reimburse him for these payments before the business can be said to yield him any profit.

When a business man buys goods to sell, and pays wages, rent, etc., he pays out money which he expects later to recover through selling goods to customers. In making these payments he is not buying permanent things like buildings or land, which last many years. He is, in a way, only putting his money into goods, rent, etc., temporarily; he soon gets it back. Such payments may be called by the distinctive title of "Recoverable Outlays", i. e., money "laid out" or paid out to be recovered later.

We have to note two classes of Recoverable Outlays, namely, Purchases and Expenses. By Purchases we understand, "purchases of merchandise to be resold." If a delivery car were bought, it could not properly be classed as "Purchases". Although it was purchased (bought), it is for *use* and not for sale. To a dealer in automobiles, however, it might well enough be classed as "Purchases", for in that case it would be an article in his stock in trade, bought for the express purpose of resale.

By Expenses we understand payments made for *services* (as of clerks, buildings, light plants, lawyers, telephones), and for *articles consumed* in operating the business (as paper, coal, gasoline).

The cost of both classes of outlay must be recovered before there can be any profit for the proprietor, and the only source from which the costs can be recovered is sales. So, in arranging the facts to form a Statement of Profit and Loss, one begins with the Sales and deducts, first, the Purchases, to show that outlay recovered, and then, from the remainder, deducts the Expenses, to show those outlays also recovered. When all Recoverable Outlays have been deducted, there remains the proprietor's profit. Accordingly the Statement takes this form:

STATEMENT OF PROFIT AND LOSS—H. R. WELLS

Sales	\$ 7,000
Purchases	4,000
Gross Profit.....	3,000
Expenses	800
Net Profit.....	2,200

Note the terms used in the above statement. Gross Profit means,

literally, Great Profit; that is to say, the profit before any Expenses are deducted; it is the first profit, the bare difference between the selling prices and the purchase prices. Net Profit is the last or final profit, after all deductions have been made. It is the amount the Proprietor may feel free to *withdraw* from the business if he wishes.

Use of the Statement. With this statement before him the business man can see *why* his profit is as it is. He can see that, if he could cut down on Expenses, his Net Profit would be greater, because there would be less to deduct from the Gross Profit, and that if Expenses increased, his Net Profit would be correspondingly less. Likewise, if he can buy goods cheaper, or increase his selling price, he stands to gain more; but if sales have to be made at lower prices or purchases at higher, he stands to gain less. Again, if he can sell more goods, even at the same price, he can increase his profit, provided he can keep the Expenses from going up in the same proportion.

Curiously enough, in the study of bookkeeping, the starting point is the end. It is pointed out above that the aim of accounting was to present the vital facts concerning the financial condition of a business and its progress. The two statements discussed, it will be readily seen, do present the *vital facts* about a business. So here in the very beginning we see that the purpose of bookkeeping is to furnish these statements.

The question naturally following an understanding of what the statements are is, How are they obtained? To have the answer is to have learned bookkeeping, for *bookkeeping is the means by which the daily occurrences in a business are tabulated so that financial statements can be readily prepared at frequent intervals*. The work now before us is to build from this foundation of a clear understanding of the purpose of bookkeeping, so that methods and systems of recording shall be clearly related to a definite aim and to each other.

PROBLEMS—CHAPTER I.

1. Prepare the Balance Sheet for the Clayton Hardware Company, owned by C. H. Clayton, from the following facts: Mr. Clayton places all the information about his affairs at your disposal, disclaiming any knowledge of accounting, and asking only that he be

given a statement showing the financial condition of his hardware business on July 1, leaving out anything not related to the *business*.

Cash at the store.....	\$ 100
Cash in bank.....	1,700
Cash, Mrs. Clayton's Saving Account.....	300
Delivery Automobile.....	1,200
Electric Runabout.....	2,600
Stock of Hardware.....	14,000
Furniture, etc., at store.....	900
Furniture, etc., at home.....	3,000
Residence	11,500
Owing to Hartford Electric Company on runabout.....	300

2. Show the Balance Sheet of H. R. Wells (page 3) as it would stand after he had lost his \$6,000 store building by fire, assuming it was uninsured. All of the furniture was lost also.

3. John Hancock, after selling his business properties, asks you to tell him what his standing is. Make the statement to show him the facts. If the balance is not Net Worth, give it a name which seems to you to describe what it represents.

Cash	\$ 2,500
A. K. Smith owes John Hancock.....	157
J. C. Peters owes John Hancock.....	202
John Hancock owes to Parker Brown.....	1,200
John Hancock owes to Smith & Debs.....	850
John Hancock owes to Willis Supply Co.....	150
John Hancock has borrowed from the First National Bank.....	1,000

4. Compare the following Balance Sheet with the one for H. R. Wells on page 5. Which business would you rather own, and why? Which business would you rather sell goods to, and why?

BALANCE SHEET—K. D. COATES

Property		Claims	
Cash	\$ 500	Debts Payable.....	\$ 6,500
Debts Receivable.....	5,000		
Land & Buildings.....	13,000		
Furniture	500		
Delivery Car.....	1,500	K. D. Coates, Propr.....	14,000
	<u>\$20,500</u>		<u>\$20,500</u>

5. From the following purchases, sales, etc., select the proper ones for the construction of the Profit and Loss Statement of the

II

TRANSACTIONS

The financial condition of a going business is constantly undergoing changes. The amount of cash on hand, for example, is seldom the same two days in succession; every payment and every receipt changes it. If a number of typical business occurrences (often called Transactions) be examined, and their effect upon Property and Claims noted, certain peculiarities of accounting will become evident.

We shall assume that on a given date the condition of Mr. Wells' business is as set forth in the Statements below:

BALANCE SHEET—H. R. WELLS

Property		Claims	
Cash	\$ 7,000	Debts Payable:	
Debts Receivable:		Blank Auto Co.....	\$ 500
M. Y. Jones.....	\$1,700	H. R. Wells:	
P. J. Frank.....	500 2,200	Original investment..	\$17,800
Land & Bldgs.....	9,000	Profit shown below.	2,200
Furniture	800	Present worth.....	20,000
Delivery Car.....	1,500		
	<u>\$20,500</u>		<u>\$20,500</u>

STATEMENT OF PROFIT AND LOSS—H. R. WELLS

Sales	\$ 7,000
Purchases	4,000
	<u>3,000</u>
Gross Profit.....	3,000
Expenses	800
	<u>2,200</u>
Net Profit (added to Investment).....	2,200

Investment Transactions. If we may further assume certain typical happenings (Transactions), the changes made in the statements because of them can be readily studied.

1—Wells, having received \$5,000 by the will of an uncle, invests this sum in the business he has been operating.

As soon as this money has been put in the cash drawer or bank account of the business, the property available for business purposes

business, and make the statement. The following were purchased (for cash unless otherwise stated) :

Delivery Car.....	\$ 1,000
Merchandise	1,200
Sealskin Coat.....	700
Merchandise on credit.....	1,500
Services of clerk.....	40
Services of housemaid.....	30
Repairs to delivery car.....	150
Use of store building.....	200

The following were sold (for cash unless otherwise stated) :

Merchandise	\$ 2,000
Two extra auto tires at cost.....	50
Merchandise on credit.....	2,100
The children's pony.....	500

6. Make three Profit and Loss Statements, using your own figures. Choose figures to show that the net profits of Business A, as compared with Business B, are \$2,000 smaller because of bad management. How should A undertake to make a better showing in the future? Choose figures to show that the net profits of Business C was \$1,000 smaller than A because of unwise buying.

is increased. There is now total property of \$25,500 (20,500 plus 5,000), since the Cash is made \$12,000. But let it be also noted that this is not the only effect of this additional investment. Recall the principle that whatever property the business has which is not claimed by outsiders will be claimed by the proprietor. No outsider can have any claim against the \$5,000, so it follows that the proprietor's interest in the business is the larger.

To show this state of affairs, the original investment of \$17,800 is changed to \$22,800 to include the new \$5,000. Of course the Present Worth would have to be changed, also \$5,000, so it would become \$25,000.

When these changes have been made in the statement, it should be observed that the total Property and the total Claims are still equal, although larger in amount. *This equality of totals will always be true, because, in expressing the changes made by the transactions, there are always two equal changes made.*

2—Wells found one morning that the store had been entered and \$100 stolen from the cash drawer.

Clearly, the cash on hand is less, and the statement reflecting the condition at this time must show the item Cash to be less. But that is not the only change in the situation worked by this loss. The total of Property is decreased, although the Claims by outsiders remain unchanged; there is, therefore, less property left to represent the proprietor's interest. The proprietorship item in the statement, then, should be decreased much as it was increased above. In this example there has been a decrease to both sides of the statement, whereas in the preceding one there was an increase to both sides.

3—Wells pays \$200 in partial discharge of his debt to Blank Auto Co.

Financial Transactions. It is easy to see the effect of transactions upon the cash; the payment would, of course, decrease the Cash. Likewise, part payment to Blank Auto Co. would leave a smaller debt to be paid later. If the statement is to express the true financial condition at this time, Cash and Debts Payable must both be altered. This is another example wherein both sides of the statement are decreased.

4—Wells collects \$500 from M. Y. Jones in partial discharge of the latter's debt.

Here cash is increased by the amount collected and Debts Receivable is decreased. Partial payment by Jones leaves less debt "re-

ceivable" by Wells. This case is seen to present a decrease to one item and an increase to another on the same side of the statement. The total Property is nowise changed; there has only been a *conversion* of one type of property (debt) into another (cash).

5—Wells' bank, at his request, loans the business \$3,000.

Cash is increased, but what other change occurs at the same time? It will have been noticed before now that the *changes always occur in pairs*.

Borrowing always carries with it the obligation or promise to repay, so it may be said that a loan gives rise to debt. It is a transaction on credit, just as we may buy merchandise on credit. But "Borrow" and "Loan" are terms generally used for transactions in cash, while "Buy" and "Sell" usually refer to transactions in merchandise or property other than cash.

Thus, while borrowing and buying on credit both give rise to debts, there still is sufficient difference between them to warrant separate accounting. Therefore, in altering the statement for this transaction, a new item should be introduced on the Claim side, namely, Loans Payable. This item is shown increased from zero to \$3,000; and again, the totals of the statement are seen to be equal, although alterations have been made in the details.

Recoverable Outlay Transactions. The investment transactions involved, among others, changes to the Proprietorship or Present Worth because the occurrences were seen to alter the amount of the owner's claims against the property. The financial transactions involved no changes whatever in Proprietorship, being merely conversions of one property into another, the acquisition of additional property from outsiders on credit or the application of property to the discharge of debts. There is seldom any profits or losses involved in such transactions. No examples have yet been studied which involved any changes in Sales, Purchases or Expenses. Some transactions of this type will now be examined.

6—Wells bought \$500 worth of merchandise for cash.

Cash is decreased, and that item on the Balance Sheet should be changed accordingly. The other change involves the Statement of Profit and Loss. There has now been an additional outlay for salable goods; it is a Recoverable Outlay, and, being in the first of the

two classes of accounts under that heading, is designated Purchases. If the Statement is to exhibit the true profit, all Recoverable Outlay must be included. We accordingly alter the amounts to reflect this increase in the Purchases. This transaction, it will be noted, expresses a decrease to property (Cash) and an increase to Recoverable Outlay (Purchases).

- 7—Wells found that an error had been made in the bill of goods bought in transaction 6. It now appears that there was an overpayment of \$50, which amount is now returned to Wells in cash by the seller.

Cash is, of course, increased. It matters not what the reason may be, if more cash is on hand after a transaction than before, that transaction has caused an increase to the cash item in the statement.

The other change is perhaps not so readily perceived. A moment's consideration, however, should show that the Purchases item in the Statement of Profit and Loss is incorrect in view of the latest information, although it was thought to be correct when the previous change occurred. If Wells has received back \$50 of what he previously paid the seller, the real cost of the Purchases is \$450, and not \$500, as recorded. Therefore, alter the Purchases item in the statement by \$50 and the true profit will result; otherwise it will be clearly incorrect, and not in accord with the actual facts. This transaction is an example of the case involving a decrease to Recoverable Outlay (Purchases) and an increase to Property (Cash).

- 8—Wells paid rent of storeroom next to his building used for storage purposes, \$100.

Cash is decreased; Recoverable Outlay (Expenses) increased. The true profit can not be shown until this outlay or expense shall have been shown as recovered (deducted) out of sales along with others. The paid out, recoverable costs are carried temporarily in their own accounts, and later deducted out of Sales in a lump sum.

- 9—Wells sold \$900 worth of goods to P. J. Frank on credit.

Here is an increase of Debts Receivable (P. J. Frank) and an increase to Recovered Outlay (Sales): This new term is in a way the reverse of "Recoverable Outlay"; it expresses an accomplished fact (i. e., the completion of a sale); the latter term, however, looks

more toward the future (outlay *to be recovered*). One term expresses the *expectation*; the other the *fulfilment*. When one "lays out" funds in the form of purchases of salable merchandise, or for useful services, he "expects" to get the funds back eventually; when the goods are actually sold at a reasonable price, the funds are then actually recovered. It is this idea accounting tries to express and record in the accounts and transactions of this type.

The effect upon the elements of the statements of the nine transactions given may be summarized as follows:

- 1—Increase Property (cash); Increase Proprietorship.
- 2—Decrease Property (cash); Decrease Proprietorship.
- 3—Decrease Property (cash); Decrease Outsiders' Claims (Debts Pay.).
- 4—Increase Property (cash); Decrease Property (Debts Rec.).
- 5—Increase Property (cash); Increase Outsiders' Claims (Loan Pay.).
- 6—Increase Recoverable Outlay (purchases); Decrease Property (cash).
- 7—Decrease Recoverable Outlay (purchases); Increase Property (cash).
- 8—Increase Recoverable Outlay (expense); Decrease Property (cash).
- 9—Increase Property (Debts Rec.); Increase Outlays Recovered (sales).

This summary should dispel any idea that may have developed, as it sometimes does, that one of the two changes always produced by a transaction is inevitably an increase to something, while the other is inevitably a decrease to something. This is not the fact, as a glance at transaction 1, 2, 3, 5, 9 will prove. There is no rule so simple as that; accounting involves real thinking, rather than merely following a rule. Every transaction must be *thought out* by itself.

Transaction Analysis. The topic at present under consideration is one of the most important presented to the student of elementary accounting. The student must learn to *analyze business transactions* and to see clearly what the *effect* of each one is upon the various elements of the business enterprise. If the occurrence produces an increase to one element, such as Debts Receivable, it must be clearly recognized as such. Any confusion or wrong assumption will surely be reflected in the statements. And if they are wrong, they may be wholly misleading to every one who attempts to use them. This is an important point. The statements must be made correctly, because the business man depends upon them to tell him what his business is doing.

The question: WHAT IS INCREASED OR DECREASED? should be always uppermost in our mind, and should be definitely answered before proceeding further with a given transaction.

The question: WHAT OTHER ELEMENT IS INVOLVED? should always be answered also before recording the change produced by any transaction. It is never to be forgotten that every transaction produces two changes. Generally one of them at least is quite readily discovered, but often it requires real thinking to perceive the other; but it is always there.

The nine typical transactions given above illustrate the method of analyzing and thinking out transactions. There is no single rule which can be applied to any and all transactions; analysis is a method of thinking things out, and not a method of merely applying a set rule. One must have clearly in mind the *purpose* of it all—the preparation of *true* financial statements—and then see to it that no part of his thinking shall lead up to any other kind of statement. With the purpose always in mind, he must look deeply into and behind the facts in a given case, to the end that their true meaning shall be clearly seen, and their real effect upon the elements which make up the statements really understood. With the transaction thoroughly understood, and the effect upon the statements clearly in mind, no difficulty will be experienced in doing whatever writing or other routine may be necessary.

PROBLEMS—CHAPTER II.

1. Starting with the statements as shown on page 11 and considering the changes caused by the several transactions thereafter discussed, prepare Balance Sheet and Profit and Loss Statement to show the standing of the business after all of the transactions had occurred. Assume that all goods have been sold.

NOTE: The procedure of finding the true amounts which make up the final statements in this problem will seem somewhat slow and clumsy, for many changes will have to be made by erasure or by crossing off the items changed. But this exercise will lead to a clearer appreciation of what a splendid, orderly record of changes the ledger really is.

2. For each transaction listed below, show the kind of things increased or decreased thereby in the manner illustrated on page 15.

1—Baldwin Southmore began his new business with the investment of \$14,000 cash, \$400 worth of fixtures and \$600 delivery truck.

- 2—Bought a stock of merchandise, \$8,000 cash and \$7,000 on credit from Harvey Hart's Brothers.
- 3—Purchased a second delivery car on credit from the Storage Auto Company, \$450.
- 4—Sold \$2,000 worth of goods to James Byer on credit.
- 5—Gave Storage Auto Company merchandise \$450 (selling price) in discharge of debt to them.
- 6—Paid Rent of Store, \$100.
- 7—Permanently withdrew \$3,000 of original investment.
- 8—Accepted a good office safe worth \$300 to apply against Byer's debt.
- 9—\$500 worth of goods from Hart's Brothers are not up to standard quality and have been returned to them.
- 10—A small fire destroyed one of the delivery cars. It was the originally invested one and was not insured.
- 11—Borrowed \$2,000 from the bank.
- 12—Paid Hart's Brothers \$1,000 on account.
- 13—Paid wages for two weeks, \$80.
- 14—Sold remaining merchandise for a \$15,000 store property and \$8,000 cash.
- 15—Paid \$1,500 on loan from the bank.

3. Produce the statements for Southmore's business as it stood after the 15th transaction.

4. Follow instructions for Problem 2 above, but use the exercises from text book which the teacher will indicate.

III

THE LEDGER

In the previous discussions, two principles stand out clearly: first, that the aim of accounting is to make Financial Statements possible, and second, that the statements of one day would be out of date the next because of the business transactions which had taken place in the meantime. The problem next to receive consideration is this: How does accounting provide the means of systematically recording transactions so that statements may be prepared at comparatively long intervals? Previous problems will have shown that a systematic way of recording transactions is very necessary.

It will be readily seen that the procedure outlined in the last chapter could hardly be practiced in actual business. While every separate transaction may be shown to produce definite changes in the statements, and thus help us see the effect of transaction upon the business, yet to attempt in practice to record many transactions by successive alterations of the statements would soon lead to confusion. The proprietor will want his statements only at certain definite intervals, say at the end of each month, and some orderly method there must be for systematically recording what happens during the month so statements can be prepared when needed without delay or confusion.

The problem which accounting has to meet involves several factors. Provision must be made for recording easily, and without danger of confusion, any possible change in any of the several elements of the statements; space there must be for recording the changes occurring in a period of some length; care must be taken to avoid errors in dealing with the many figures.

The Account. Perhaps the first suggestion coming naturally to mind upon considering the factors in this problem would be that the statements be spread upon a sheet sufficiently large to permit amounts to be neatly added to and deducted from the separate items. But only a sheet of unreasonable size could take care of a large business. The next idea advanced might well be that a page in a book, or a part

of a page, be assigned to each of the several elements of the statements. Thus there could be a Cash Page, a Purchase Page, etc. Transactions which increased Cash could easily be added to the previous figures and deductions subtracted.

Part of the problem seems solved, for changes could be easily recorded on the separate pages without confusion, and there would be space for a considerable period, with the opportunity of carrying the work forward to other pages when one was filled. But if notice be taken of the great number of small problems in subtraction and addition that would be necessary, it will be seen that little provision has been made for avoiding the errors naturally attendant upon such arithmetic.

We see at once that a change in any element of a business could be in only two directions—increase or decrease. The cash, for example, could be only added to or subtracted from. Therefore, the idea comes to mind at once that most of the adding and subtracting of separate transactions could be eliminated by dividing the page vertically down the middle and recording on one side only those transactions which increased the total of that page, and on the other only the decreasing transactions.

The Cash Page, if kept thus, would look like this:

Cash	
(Increase side)	(Decrease side)
June 1—Balance on hand at beginning\$5,000	June 1—to Marvel Flour Mills..\$900
June 7—from Smith & Co... 700	June 3—to Hart Produce Co... 600
June 9—from A. J. Jones... 500	June 4—to clerk for wages.... 75
June 13—from R. P. Clark... 300	June 7—to landlord for rent.... 200
June 17—from H. T. Peters.. 800	

In this arrangement we have an account: in a way, a story. A narrative is sometimes called “an account”; the above example is really a narrative of the changes occurring in the Cash, hence the title, Cash “Account”. Other account names are given in the same way, such as Sales Account, P. J. Frank’s Account, etc.

That the arrangement of financial facts in account form really decreases the chance of arithmetical error will be apparent in the above example. In order to find the amount of cash on hand on the last day shown, (1) add together the entries on the left, (2) add together the entries on the right, (3) subtract the smaller of the two sums from the larger. The result will be the Balance of Cash on

June 17. If we successively added and subtracted each entry from the opening Balance, there would be eight calculations to be performed, each one offering a chance of error. There is a saving, too, in time in the account form, because of the fewer calculations.

The Ledger. If each item on the Financial Statements be given a page or part of a page in this manner, the result would be a book of accounts which we term a Ledger. In some languages the term is equivalent to "Principal Book", which describes it very aptly.

The next problem is to get the Ledger started or "opened" as the accounting term has it. The process of opening the Ledger would seem simple enough—merely heading up the pages and entering the amounts as shown on the first statement*—if it were not for the fact that one must decide on which side of the vertical ruling to enter the first amounts or opening Balances.

This will require some little explanation and no little study to make it clear. A rough outline sketch of the Ledger is shown on the opposite page, containing as opening entries the amounts given in H. R. Wells' statements on page 11.

It will be noted that in the Ledger the Purchases, Sales and Expenses have not yet been combined to calculate the Net Profit, as has been done on the statements. It follows, therefore, that the Proprietor's Investment in the Ledger will not yet have been increased by the Net Profit as it has upon the finished statement.

The other important point to be explained is, why some of the opening balances are on the left, while others are on the right.

By leaving a blank space in the above Ledger (in a book it might be several pages), a division is marked between the accounts which come from the Balance Sheet and those which come from the Statement of Profit and Loss. By comparing the first section of the Ledger with the Balance Sheet, it will be observed that all of the amounts on the left (Property) side of the latter became opening entries on the left side of the accounts in the Ledger; all of the amounts on the right (Claims) side became opening entries on the right side of the Ledger accounts. This arrangement prevails, not by coincidence, but by intention. The reason is that we shall wish later to produce a Balance Sheet from the facts in the Ledger. It will aid us in transcribing

*The first statements, if no accounting books had been kept, would have to be compiled from an inspection and valuation of the property and by reference to whatever unrelated memoranda were available.

ing correctly the amounts, if they are found in the Ledger on the same side, left or right, as they are to be placed upon the Balance Sheet. Hence, in opening the Ledger for the first time, the amounts are *intentionally* placed as shown above, left and right.

H. R. WELLS LEDGER

Cash	Blank Auto Co.
\$7,000	\$500
M. T. Jones	H. R. Wells—Invest.
\$1,700	\$17,800
P. J. Frank	
\$500	
Land and Bldgs.	
\$9,000	
Store Furniture	
\$800	
Delivery Auto	
\$1,500	
Purchases	Sales
\$4,000	\$7,000
Expenses	
\$800	

The arrangement of the opening entries coming from the Statement of Profit and Loss is not so readily explained. But it can be placed on a basis similar to the first part of the Ledger by referring to an older form of Profit and Loss Statement.

It was the custom, until recent years, to report the Statement of Profit and Loss in the following form:

STATEMENT OF PROFIT AND LOSS (old form)

Purchases	\$4,000	Sales	\$7,000
Expenses	800		
	<u>\$4,800</u>		
Balance being Net Profit.....	2,200		
	<u>\$7,000</u>		<u>\$7,000</u>

This original form of the Profit and Loss Statement is seen to conform to the arrangement of the Balance Sheet by having the facts tabulated in two columns, left and right. One using this style of statement would find it an aid in transcribing the facts, if the figures were to be found in the Ledger on the same side as they were to appear on the statement. In opening the Ledger, then, the amounts were intentionally entered as shown in the Ledger above, Purchases and Expense balances on the left and Sales on the right, and the custom remains.

Classification of Accounts. With the Ledger opened, the next point concerns itself, with making additional entries therein to record the financial changes that take place. The first question would logically be: Which side of these accounts receives the increases and which the decreases as the transactions are entered?

This is easily answered for those accounts which enter the Ledger when it is first opened: *Any increase would be entered on the same side as the opening balance; any decrease, on the side opposite the opening balance.**

After a Ledger has been opened, however, new accounts are begun as occasion requires, and for these there must be some way of determining the increase and decrease side. All accounts are divisible into classes, and according as one account falls into one class or another its plus and minus characteristics are determined. So the quickest way to get at the matter is to learn how accounts are classified

*This peculiar practice in accounting of expressing a subtraction by an opposing entry should never be lost sight of.

into groups, and to learn to recognize new accounts by assigning them to their appropriate group.

The first subdivision of accounts marks out two great classes:

- I. Real accounts.
- II. Nominal accounts.

Every account belongs under one of these two heads. Any account which may properly be shown in the Balance Sheet is a Real account, for it usually stands for some real, existing thing, or some lawful, enforceable right, as: Cash, stands for money in the drawer; Furniture, for the desks, etc., or as Debts Receivable stand for the enforceable right to have the debt paid.

Any account which may properly be shown in the Profit and Loss Statement is a Nominal account, for it represents not a *thing*, but a name—a mere idea. Sales, for example, does not call to mind any actual thing as would Cash; it calls to mind only a “goods-sold-idea”, if we may so express it. Expense calls to mind a “services-consumed-idea”. A sale is not a thing like Cash or a right like a Debt, but merely a count of “disposed-of-merchandise”. Expense is merely a count of “used-up-services”.

Each of these groups is in turn divided:

- I. Real accounts.
 - 1. Assets.
 - 2. Liabilities.
- II. Nominal accounts.
 - 1. Recoverable Outlays.
 - 2. Recovered Outlays.

The subdivisions of Group II are already familiar, but the subdivision of Real accounts (Group I) reveals two new names. “Assets” is a technical term, the nearest synonym for which is Property. Thus in a technically correct Balance Sheet (and Ledger as well) certain elements are termed Assets which we have called Property until now. By an Asset we will now understand any valuable thing or right which is serviceable to the operation of business, or which possesses value in the sense that cash could be obtained for it.

The term “Liabilities” is now to replace “Claims” in our statements to make them technically correct. The two terms have much the same significance; the difference is largely one of point of view. A debt that we shall soon have to pay may be regarded as a Liability, (i. e., as an obligation, a burden), or as a Claim (i. e., a right another

has against us), depending upon whether we choose to look at it from our own point of view or from another's.*

A diagram will help to get these matters related in our minds in an orderly manner. The Ledger may be represented as the two statements greatly expanded as to space.

LEDGER

REAL ACCOUNTS—(i. e., Balance Sheet accounts)

Asset Accounts

Liability Accounts

NOMINAL ACCOUNTS—(i. e., Profit and Loss Statement accounts)

Recoverable Outlay Accounts

Recovered Outlay Accounts

The headings in this diagram are, of course, merely explanatory, and do not appear in an actual Ledger.

Increases and Decreases. The important characteristics of these several classes of accounts now to be stated should be *thoroughly learned* and every effort made to use them consistently in subsequent exercises.

*Proprietorship is clearly recognized as a claim against assets, but there are those who profess inability to conceive of it as a liability of the business. The average business man, however, and the average student experiences no difficulty in thinking of the Business as distinct from the Proprietor and therefore can clearly conceive of the Business (typified by the Balance Sheet) as liable to the Proprietor for his Invested Capital and the accumulated profits. But it should never be overlooked that the Proprietor's claim is always *secondary* to that of outside creditors.

All accounts representing Assets or Recoverable outlays are increased by entries on the left side and decreased by entries on the right.

All accounts representing Liabilities and Recovered Outlays are increased by entries on the right side and decreased by entries on the left.

Although the above statement of principle should be memorized, the following arrangement may help to call the facts to mind:

LEFTHAND—

Increases to Asset accounts.
Increases to Recoverable Outlay accounts.

Decreases to Liability accounts.
Decreases to Recovered Outlay accounts.

RIGHTHAND—

Decreases to Asset accounts.
Decreases to Recoverable Outlay accounts.

Increases to Liability accounts.
Increases to Recovered Outlay accounts.

By applying these principles it will now be possible not only to open a Ledger if required, but also properly to make subsequent entries therein to record any changes that occur in the elements of the business thereafter. The Ledger will then become a concise but very complete record of the condition and progress of the business.

Making Entries. When preparing to make entries after the Ledger has been opened, one must answer three questions regarding each transaction:

1. Which two accounts are changed by this transaction?
2. Are those accounts increased or decreased?
3. Does the entry, therefore, fall upon the left or right side?

The first two questions can be answered only by thinking over the accounts in use and the meaning of the transaction. If the several accounts being used do not come readily to mind, a list of them should be looked over, and the proper ones involved-chosen therefrom.

The meaning of the transaction must be understood perfectly or correct entries will be impossible. If it is said that a delivery car is purchased, it must be clearly perceived that the element of the business called Delivery Equipment is increased, and not Purchases. The latter is a technical term meaning "Purchases of merchandise for resale only"; it is not so broad in meaning in accountancy as in ordinary conversation. Should the car be sold later, Delivery Equipment

would be decreased, for the accounts must always show by their balances the present state of affairs.

If the transaction states that a Debt Receivable or a Debt Payable is paid, we must understand that "paid" does not always refer to cash. The word is more in the sense of "discharged", and therefore may be used to indicate a decrease to Debts from whatever cause. Thus goods returned could cause a decrease to Debts as properly as would cash; a promissory note would discharge a previously contracted debt by taking the place of the oral agreement. These examples suffice to show that transactions must be studied thoughtfully.

As one gains experience in analyzing transactions, the customary and oft-repeated ones grow very familiar, and interpretation is very easy. But new and unfamiliar transactions are constantly coming to notice which must be reasoned out step by step as suggested.

With the first two questions satisfactorily covered, the third can be answered by referring the transaction to the rules of increase and decrease given in connection with the classification of accounts. One needs only decide to which class belong the accounts in question 1, and recall whether the increases to that class fall upon the left or the right side. So to decide necessitates a thorough understanding of the characteristics of each class of accounts, as given in a previous chapter, and an ability instantly to recall the general rule of plus and minus.

PROBLEMS—CHAPTER III.

1. Analyze the several typical transactions for H. R. Wells' business in Chapter II, to determine which side of specific accounts should receive for each one. Be prepared to answer the three questions on page 26 for each transaction. For convenience, record the results of your study of each transaction like this:

Cash account	Sales account
transaction (1) \$700	transaction (1) \$700

2. Follow instructions for problem 1 above, but use the transactions of problem 2, Chapter II (Southmore's business). Save the solution of this problem for future use.

3. Follow the same instructions, using such exercises from text book as the teacher may indicate.

IV.

TRIAL BALANCE AND STATEMENTS

In an earlier chapter we saw how the statements were made in a form to show a left and a right side with equal totals. We will take another example:

BALANCE SHEET—H. K. BROWN

Assets		Liabilities	
Cash	\$ 800	Debts Payable.....	\$1,100
Debts Receivable.....	1,200	Notes Payable.....	300
Notes Receivable.....	700	*H. K. Brown, Capital.....	5,900
Lands and Bldgs.....	3,500		
Delivery Equipment.....	900		
Store Fixtures.....	200		
	\$7,300		\$7,300

A Ledger opened from the facts shown on the above Balance Sheet of H. K. Brown would also present equal totals, as the illustration on the following page will show.

These totals need not be shown in an actual Ledger. The Sales, Purchases and Expense accounts are blank as yet, since it is assumed that the business is just now starting.

*A new term is here introduced. The Proprietor's claim against the assets is termed his Capital Investment, or simply his Capital. It is ordinarily the amount he put in originally to start the business. It may be increased by putting in more property of any kind, or decreased by taking property away permanently. To be technically correct his account in the ledger should be headed as here shown in this balance sheet.

Cash

\$800

Debts Receivable

\$1,200

Notes Receivable

\$700

Land and Buildings

\$3,500

Delivery Equipment

\$900

Fixtures

\$200

Purchases

Expense

\$7,300, Total of entries on left.

Debts Payable

\$1,100

Notes Pay.

\$300

H. K. Brown, Cap.

\$5,900

Sales

Total of entries on right, \$7,300

If we were now to reverse the process and take off a list of the accounts and amounts shown by the Ledger, we would have simply the Balance Sheet again, but without its headings.

Let us analyze a few transactions, enter them in the Ledger, and note the effect upon the equality of the totals.

Transactions

- 1—Collected cash \$200 from a Debt Receivable.
- 2—Paid cash \$100 on a Debt Payable.
- 3—Bought merchandise on credit \$700.
- 4—Paid clerk \$40 for wages.
- 5—Sold all of the merchandise for cash, \$1,200.

These transactions, when analyzed as outlined in the previous chapter, will show certain accounts to be increased and others decreased; some entries for these transactions would be to the left side of the accounts, some to the right. Arranged in tabular form, the analysis gives the following results:

Entry on Left		Entry on Right	
Trans. 1—Cash	\$ 200	Debts Rec.	\$ 200
Trans. 2—Debts Pay.	100	Cash	100
Trans. 3—Purchases	700	Debts Pay.	700
Trans. 4—Expense	40	Cash	40
Trans. 5—Cash	1,200	Sales	1,200
	<hr/>		<hr/>
	\$2,240		\$2,240

The student should analyze each of these transactions himself to see if he comes to the same conclusion as shown above.

Transactions Entered. From this tabulation it is an easy step to enter the facts in the Ledger. The accounts in the Ledger will then appear as shown on the following page.

Cash

Original	\$ 800	Trans. 2	\$100
Trans. 1	200	Trans. 4	40
Trans. 5	1,200		

Debts Payable

Trans. 2	\$ 100	Original	\$1,100
		Trans. 3	\$ 700

Debts Receivable

Original	\$1,200	Trans. 1	\$ 200
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Notes Payable

Original	\$ 300
----------	--------

Notes Receivable

Original	\$ 700
----------	--------

H. K. Brown, Capital

Original	\$5,900
----------	---------

Land and Buildings

Original	\$3,500
----------	---------

Delivery Equipment

Original	\$ 900
----------	--------

Fixtures

Original	\$ 200
----------	--------

Purchases

Trans. 3	\$ 700
----------	--------

Sales

Trans. 5	\$1,200
----------	---------

Expense

Trans. 4	\$ 40
----------	-------

Now to test the equality of totals after entries have been made, the following list is prepared from the Ledger as it stands:

LIST OF ACCOUNTS

	Left Side	Right Side
Cash	\$2,200	\$ 140
Debts Receivable.....	1,200	200
Notes Receivable.....	700	
Land and Buildings.....	3,500	
Delivery Equipment.....	900	
Fixtures	200	
Purchases	700	
Expense	40	
Debts Payable.....	100	1,800
Notes Payable.....		300
H. K. Brown, Capital.....		5,900
Sales		1,200
	<hr/>	<hr/>
	\$9,540	\$9,540

The totals are seen to be equal. It is but another illustration of the old proposition that *equals added to equals produce equals*. If we take the totals of the Balance Sheet, or, what is the same thing, the totals of the Ledger just after opening, and to them add the totals of the transactions as they were tabulated above, we would have the totals of the Ledger after the transaction entries were made, i. e., the totals just derived in the above list of accounts.

	Left	Right
Totals in Ledger at opening (p. 28).....	\$7,300	\$7,300
Transaction totals (p. 29).....	2,240	2,240
	<hr/>	<hr/>
Totals from Ledger after entries (p. 31).....	\$9,540	\$9,540

Where business transactions are numerous and the Ledgers large, such a *test* of the entering is a frequent necessity. Figures may easily be copied incorrectly, or even entered on the wrong side of the account. This causes the Ledger record to contain untrue statements of fact, and occasional tests are advisable in order that errors may be detected and corrected.

The list of accounts which affords this test is given the technical name of Trial Balance. It is, indeed, a trial of the Ledger, to see if it is in balance or equilibrium; that is, in a condition of equality of totals.*

*It is often thought desirable to list in the Trial Balance only the balances of the several accounts rather than both sides. This is perfectly proper once the theory of the Trial Balance is thoroughly understood.

Debit and Credit. We are to note, in passing, two other technical terms much used throughout accounting. It will have been noticed that the left and right sides of the Balance Sheet, of the accounts, of the Trial Balance, etc., often enter into the discussion. Custom has assigned the name Debit to the left side wherever it is spoken of and Credit to the right side. Thus, for example, we speak of the debit side of the Cash account, referring thereby to the left side; we refer to the right side of the Cash account always by the term credit side. Sometimes the terms are abbreviated—Dr. and Cr.

These terms are decidedly convenient because of the ease with which they may be used as noun, adjective or verb. We may say: This is the debit side of the account, using "debit" as an adjective to define "side". We may say: This is a debit for the Cash account, meaning an item which must be entered on the left (debit) side of Cash. Here the term is used as a noun. Again, it may be used as a verb to indicate an action, as when we say: I debit this to Purchases account, meaning, I place this upon the debit side of the account.

Because Debit invariably refers to the left and Credit to the right, and because, as we have seen, the two sides of the Balance Sheet are always equal, as well as the two sides of every transaction, and the two sides of the Ledger and the Trial Balance, we are not surprised to find in accountancy an axiom which states—

Debits and Credits are always equal.

This axiom has a more important bearing later than just now, for later we shall see transactions which involve one debit and two credits; the two credits added must then be equal to the one debit.

The Statements. Besides affording a ready test of the accuracy with which amounts have been entered to the debit and credit of the accounts, the Trial Balance is a convenient *summary* of the contents of the Ledger from which to construct the financial statements at the end of a period.

We have to think of the Ledger as a single page statement expanded into a book, and as being subject to constant change from the entries therein. The form never changes; only the amounts. The Ledger, then, is ready at all times to be *reconverted* into statements, and the statements shall then reflect the changes occurring since the Ledger was opened, or since the last statements were prepared. The

Trial Balance, then, being a summary of the Ledger, contains all of the elements necessary to form the new statements. Indeed, the statements are but the Trial Balance items re-grouped to form the Balance Sheet and the Profit and Loss Statement.

A good method of procedure in transforming a Trial Balance into the financial statements is, first, to mark in the margin opposite each item a letter to indicate the class of accounts it belongs to. If we use "A" for Asset, "L" for Liability, "RO" for Recoverable Outlay, and "Rd" for Recovered Outlays, H. K. Brown's Trial Balance would be marked as follows:

TRIAL BALANCE—H. K. BROWN

	Dr.	Cr.
A Cash	\$2,060	
A Debts Receivable.....	1,000	
A Notes Receivable.....	700	
A Land and Buildings.....	3,500	
A Delivery Equipment.....	900	
A Fixtures	200	
RO Purchases	700	
RO Expense	40	
L Debts Payable.....		\$1,700
L Notes Payable.....		300
L H. K. Brown—Capital.....		5,900
Rd Sales		1,200
	<hr/>	<hr/>
	\$9,100	\$9,100

Where statements are to be made from the Trial Balance, as is usually the case, it is well to have the Trial Balance consist of account balances as above rather than of both sides of each account.

With the Trial Balance thus marked in the margin it is not a difficult matter to assemble all items marked "A" into one column, and those marked "L" into a parallel column, with proper headings, to form the Balance Sheet. It will be observed that in lettering the Trial Balance we must have very clearly in mind the distinction between Real and Nominal accounts and between the four sub-classes of accounts, so that each item will be properly labeled.

When the Real accounts have been transferred from the Trial Balance to the Balance Sheet, taking care to check off each item as transferred so none shall be missed, then the Profit and Loss Statement is constructed from the Nominal accounts. When that is completed, see that all accounts on the Trial Balance are checked. Remember, too, that the old form of Profit and Loss Statement, while an excellent aid in making explanation of theory, is no longer the preferable arrangement.

Following these suggestions, the statements from the above Trial Balance would be as follows:

BALANCE SHEET—H. K. BROWN

Assets		Liabilities	
Cash	\$2,060	Debts Payable.....	\$1,700
Debts Receivable.....	1,000	Notes Payable.....	300
Notes Receivable.....	700	H. K. Brown, Capital.....	5,900
Land and Buildings.....	3,500		
Delivery Equipment.....	900		
Fixtures	200		
	\$8,360		\$7,900

PROFIT AND LOSS STATEMENT

Sales	\$1,200
Purchases	700
Gross Profit.....	500
Expenses	40
Net Profit.....	460

Profit and Capital. It will be observed that the Real accounts from the Trial Balance are not quite enough to bring the two sides of the Balance Sheet into equilibrium. This interesting point deserves some little consideration. We will find it helpful to look more closely into the nature of the Proprietor's Capital Investment.

If we assume that Mr. Brown's Balance Sheet on page 27 was dated January 1, 1920, and that the transactions on page 29 occurred during the month of January, it will follow that the Trial Balance on page 33 and the statements made therefrom would be dated February 1, 1920. Now looking at H. K. Brown's Capital item in the January 1 and the February 1 Balance Sheets, we find them the same in amount. It would seem from this that Mr. Brown's interest in the Assets was no more now than a month ago. But let it be noted that the Profit and Loss Statement clearly shows the business has earned a profit during the month—which is to say, it has more Assets than before. To whom would the increase in Assets (i. e., the Profit) belong if not to the proprietor, whose invested capital and guiding hand has made the profit possible? No one has a better claim; the proprietor's investment and his efforts give him the right to the gains arising therefrom. Evidently Mr. Brown's claim against the Assets on February 1 is more than the \$5,900 capital he originally put into the business; his claim now really consists of his Investment *plus* any profits gained by the business.

This reasoning is supported by the figures. There are \$8,360 in Assets; of this total, \$2,000 (\$1,700 plus \$300) is claimed by outsiders; the remainder, \$6,360 (\$8,360 less \$2,000), would naturally be claimed by the proprietor as his own. In other words, the proprietor will claim whatever Assets are not necessary to protect outsiders. This remainder of Assets has a technical term—Net Worth. The net worth of this business on February 1, then, is \$6,360. But looking back to the January 1 Balance Sheet it is found that the corresponding figure (Net Worth, or Proprietor's Capital) was \$5,900.

This means that a sale of the business on January 1 would net the proprietor \$5,900, and that a sale on February 1 would net him \$6,360. It is clear that changes have taken place during the month which are very favorable to Mr. Brown. Since he has not put in any more of his own money to increase his net worth, it follows that the increase must have come from the operations of buying and selling merchandise. A glance at the Profit and Loss Statement shows this to be the case. The Profit there calculated is \$460; the increase in Net Worth from January 1 to February 1 is found to be \$460 (\$6,360 on February 1 less \$5,900 on January 1). The amounts agree and the statements agree.

Some of these important points may be summarized as follows:

- 1—The Net Worth of a business is the difference between its Assets and its Liabilities to outsiders.
- 2—The difference between the Net Worth at two different dates should show the same net profit or loss on the Profit and Loss Statement, allowances being first made for any additional investment of capital or withdrawal thereof.
- 3—The Capital from the previous Balance Sheet plus the net profit (or minus the loss) from the present Profit and Loss Statement will give the new capital (or Net Worth) for the present Balance Sheet.
- 4—If the Profits be added to (or losses deducted from) the previous Capital and the resulting figure shown on the current Balance Sheet the latter statement will balance.

The statements presented above are now shown again and brought into agreement—tied together, in a way, by having the Net Profit from the Profit and Loss Statement added into the Balance Sheet.

BALANCE SHEET

As of February 1, 1920

Assets		Liabilities	
Cash	\$2,060	Debts Payable.....	\$1,700
Debts Receivable.....	1,000	Notes Payable.....	300
Notes Receivable.....	700	H. K. Brown, Capital,	
Land and Buildings.....	3,500	January 1.....	\$5,900
Delivery Equipment.....	900	Add Profit from Profit	
Fixtures	200	& Loss Stm.....	460
		Net Worth, Feb. 1.....	6,360
	<u>\$8,360</u>		<u>\$8,360</u>
	<u>=====</u>		<u>=====</u>

PROFIT AND LOSS STATEMENT

For Month of January, 1920

Sales	\$1,200
Purchases	700
	<u> </u>
Gross Profit.....	500
Expenses	40
	<u> </u>
Net Profit carried to Balance Sheet.....	\$ 460

It may be here noted that as a mark of completion the equal totals of the Balance Sheet are always underlined with a double ruling. Note also that the technically complete heading for the Balance Sheet includes the phrase "as of February 1, 1920", or other date, and that the heading of the Profit and Loss Statement always shows the period covered, as "month of January, 1920", or "year ended December 31, 1919".

PROBLEMS—CHAPTER IV.

1. Take a Trial Balance of the Ledger from problem 3, Chapter III.
2. Turn back to Chapter II for the several illustrative transactions again. Analyze each transaction there into terms of Debits and Credits, and show the results thus:

Debit the	Credit the
(1).....account with \$xxxaccount with \$xxx
(2).....account with \$xxxaccount with \$xxx
etc.	

3. The following facts are given about P. R. Small's business :

On Jan. 1, Cash, 3000; Debts Payable, 1000; Equipment, 1000; Land and Buildings, 5000; Notes Payable, 1000; Debts Receivable, 2000; Notes Receivable, 1000.

On Feb. 1, Notes Receivable, 1500; Debts Receivable, 1000; Notes Payable, 500; Land and Buildings, 5000; Equipment, 1500; Debts Payable, 1500; Cash, 4000.

From the facts given above, after studying again the summary on page 35, calculate—

(1) Net Worth, January 1. (2) Net Worth, February 1. (3) Profits made during month of January.

4. From the following Trial Balance, prepare the Balance Sheet and the Statement of Profit and Loss.

TRIAL BALANCE

K. D. Clark—Dec. 31, 19..

Sales	\$	\$26,000
Notes Receivable.....	1,200	
Notes Payable.....		900
John McCrae, Capital.....		12,000
Furniture and Fixtures.....	700	
Debts Receivable.....	4,400	
Cash	4,200	
Expense	1,800	
Debts Payable.....		1,400
Purchases	18,000	
Delivery Equipment.....	2,800	
Land and Buildings.....	7,000	
Repairs	200	
	<hr/>	<hr/>
	\$40,300	\$40,300

5. Prepare statements from exercises in the text book to be indicated by the teacher.

V.

THE JOURNAL

Personal Accounts. In previous discussions mention has been made of Debts Receivable and Debts Payable. We are now to observe that these two accounts do not provide a sufficiently detailed record of debts. The Proprietor needs to know not only the total owing to him and by him, but the amount due from each individual customer and due to each individual creditor as well. Consequently, accounting must provide the necessary records.

Instead of one account for Debts owing to us, a considerable space in the Ledger is usually set aside and accounts opened therein for every customer who buys on credit. Another portion of the Ledger will be given over to the separate accounts of the people we owe. These two sections of the Ledger, then, contain the accounts of debts *receivable* by us and the accounts of debts *payable* by us. In other words, the Ledger contains a group of Accounts Receivable and a group of Accounts Payable.

All we have learned in the past about a Debt Receivable account applies with equal force to each separate individual's Account Receivable. Whenever an account is opened for a customer, that account is an Account Receivable; it is, therefore, an Asset, and as such it will have a debit balance, and it will be debited for increasing transactions and credited for decreasing transactions.

In a similar way we can describe Accounts Payable. Whenever a purchase is made on credit a debt is incurred; in order properly to record it, there should be an Account Payable opened with the individual creditor and headed with his name. Such an account will represent a Liability, and as such will show a credit balance, and will receive increasing transactions on the credit side and decreasing transactions on the debit side.

The method of reasoning out transactions is in no way changed by the introduction of personal accounts or the new titles "Accounts Receivable" and "Accounts Payable". In analyzing a transaction we still ask ourselves: Which two accounts are increased or decreased? If we see that a debt is contracted or discharged, we must determine

whether it is Receivable or Payable. Then we can determine whether the person's account is to be debited or credited, for we know the plus and minus arrangement of all accounts, including personal Accounts Receivable and Accounts Payable.

A Book of Original Entry. Up to this point most of the discussion has had to do with statements and accounts. We have seen the statements expanded into a book (Ledger) in order to permit the many changes to the items to be easily and systematically recorded, and we have studied the classification of accounts, together with the characteristics of each class. As a result, we are able to analyze almost any transaction and determine what accounts are involved, whether they are increased or decreased, whether debited or credited. We have heretofore made the entries direct to the proper accounts in the Ledger, in recording the results of our analysis of transactions. This has been done, not because it is the method of practical business, but in order to confine our attentions to one important thing at a time.

In actual business, no entries are made directly into the Ledger accounts; there is always a preliminary record standing between the Transaction and the Ledger; no transaction can reach the Ledger except through this "Book of Original Entry". There are two reasons why this practice has grown up in business. The first is the need for a record of transactions in *date order*, which can be made as they occur. It is dangerous to wait to make a record of facts; one may forget to make any record at all, or may omit or change some important particular. It is well, too, to have a chronological (date-order) record, so that the events of a particular day will be grouped together for future reference.

The other reason lies in the fact that experience has proved the usefulness of having both aspects (debit and credit) of transaction recorded together. Direct entry to Ledger accounts causes the debit of a given transaction to be widely separated from the corresponding credit, which is entered in some other account. No one can refer to the records and understand what has happened if only one side of the transaction is seen, and we can not comprehend the full meaning of debit and credit entries unless we know what was debited at the same time this or that was credited. It is often necessary to trace the entry from the Ledger account back into the transaction, and some record is necessary to connect the two; some record showing in one place both the debits and the credits for the given occurrence. The first

Book of Original Entry, and the basis of all others, is the Journal. The reasons for its existence have been examined, and we are now to consider the arrangement of the entries therein.

It has been observed that the Journal is the connecting link between the transaction and the Ledger; consequently there will be a great deal of transferring of figures from Journal to Ledger (posting, it is called). The problem of getting the correct entry made in the Ledger involves (1) posting to the proper account, (2) posting to the proper side in that account, and (3) writing the true figure, and no other. If the Journal Entry is to be well constructed, it should be designed with the possibilities of error in mind, and so arranged as to help reduce mistakes to a minimum. The form of the entry is as follows:

July 24—		
John Brown.....	\$400.00	
Cash.....		\$400.00
Paid the account due today for goods bought July 8th		

Posting. In every Journal Entry there are three essential parts, (1) the accounts involved, (2) the amounts involved, (3) the explanation. In addition to this, there usually is a date in the middle of the line above the entry.

The account to be debited is always named *first*, and is written close to the left margin; the account to be credited is always named second, and is *indented* a little to the right. This arrangement has the effect of marking out the debit from the credit to even the most hurried glance. The amount to be debited is to be written on the *same line* as the account name, and in the *first* column; the amount to be credited, in the *second* column. Here is another obvious sign of which item is the debit and which the credit. Later, we shall find entries containing, say, one debit and two credits; the figures might be posted to the wrong side of the account unless we fix in mind the principle that amounts in the first column of the Journal are posted to the debit side of the accounts and amounts in the second to the credit side. The whole idea of the form of the Journal Entry is to make posting easier and more accurate by directing the eye irresistibly to one item as the debit and to the other as the credit.

The Journal Entry may be said to be the record of the conclusion reached in analyzing a transaction. The accounts to be debited and credited are determined by analysis and reasoning; the result of

the thinking is made note of by constructing the Entry. At the time of posting, it is not necessary to reconsider the transaction; judgment was formed before the Journal Entry was made, and one should now transfer to the Ledger just what debits and credits the Journal Entry states. In a word, be sure when making the Journal Entry that it shows exactly what you want to bring into the Ledger; then posting becomes an easy mechanical routine. No Journal Entry should be constructed without a very clear idea at the time of just the effect it will have upon the accounts when posted.

Errors. Since many mistakes occur in reading and writing figures, care must be taken to make figures plain and unmistakable in the first place, and then to read them with mind alert when they are to be posted and rewritten. Some people have developed a habit of forming a "picture" of the figures read, and then writing them down as they looked to the eye. This often leads to mistakes. The proper way is to read the figures so the mental impression is that of figures spoken rather than seen; then while writing them in the Ledger the mental image should again be that of *spoken figures*. Before leaving the particular entry, it should be checked back by glancing at the original amount again. The mental point of view can easily be changed now and the amounts compared as purely *visual images*. The same principle of altering the mental sequence is followed in checking addition for errors. If the habitual practice is to add the column downward, reverse and add upward when checking. The habit should also be developed of always writing the Ledger page opposite the posted item in the Journal IMMEDIATELY upon posting. Any entries, then, without the posting page suggest an error because of an omitted posting.

VI.

SPECIAL BOOKS OF ORIGINAL ENTRY

All transactions can be Journalized and posted from the Journal, but it should be observed, the physical limitation of a single Book of Original Entry would seriously handicap the larger business of today. There are too many transactions to be contained in one Journal; there are many more entries to make than one man could possibly take care of alone. Modern business has been forced to abandon the practice of entering every transaction through the Journal. The development which has taken place has been in the direction of subdividing the general purpose Journal into several special purpose Journals.

Specialized Journals. If the problems should be presented of choosing those entries which should hereafter be written in a separate book, one would naturally seek first to eliminate from the Journal those most frequently repeated. No doubt Sales entries and Purchase entries would first attract attention by their number.

Should the plan be adopted, a separate Sales Journal to receive only entries for *Sales on account* would perhaps provide work for one man; another book, a Purchases Journal to receive entries only for *Purchases on credit*, would occupy a second; a third might have charge of the general Journal for all other entries. Thus at least three times as much accounting work could be done as would be possible with only one Journal and one bookkeeper.

No doubt the next class of entries found numerous enough to warrant a separate Journal would be Cash Receipts. These put in charge of another clerk would mean further subdivision of labor and more work done. The process of subdivision would likely be carried a step further and the Cash Payments set up in a separate Journal. Quite possibly this record would be in charge of the same person having the Cash Receipts to care for; handling all the cash—receipts and payments—he would be called the Cashier.

The ordinary special Journals, then, may be:

- 1—Purchases Journal—containing—
Debits to Purchases Account,
Credits to various Creditors' accounts.

- 2—Sales Journal—containing—
Debits to various Customers' accounts.
Credits to Sales Account.
- 3—Cash Received Journal—containing—
Debits to Cash Account,
Credits to various accounts.
- 4—Cash Paid Journal—containing—
Debits to various accounts,
Credits to Cash Account.

The subdivision of the Journal, it should be noted, does not alter in any way the analysis of transactions and their expression in terms of Debit and Credit. The Ledger accounts are altogether unchanged; only the posting is changed, and that simply to the extent of there being several sources of posting instead of one.

Total Posting. The subdivision of the single Journal as above described is more expressive of the *idea* underlying Special Books of Original Entry than it is of the *form* Sales Books, Cash Books, etc. take in actual practice. Although all Books of Original Entry, whatever their form, continue to express both Debits and Credits, it is not necessary in modern practice carefully to name both accounts in order to do so. A moment's consideration of the Special Journals will make this plain.

In the Sales Journal, every credit entry will be a credit to Sales Account. What would be simpler than to find the total of all the entries for a month, and post that one sum to the credit of Sales Account instead of posting twenty or forty (or two hundred) separate amounts? Estimate the lessened chance of mistakes and the saving of time in posting one figure compared with forty. Consider the saving of time in writing only half as much in recording an entry.

In a Sales *Journal*, several entries would take this form:

SALES JOURNAL

John Jones.....	\$600	
Sales.....		\$600
H. K. Potts.....	700	
Sales.....		700
P. D. Downs.....	400	
Sales.....		400
Etc., etc.—		

But since every Credit is to be to Sales Account finally, and since the Debit figures are the same amount as the Credit in each entry, we accomplish as much with modern Sales Book as we could with a Sales

Journal, by writing the debit portion only and obtaining the credit by adding the debits. Thus the Sales Book would be as follows:

SALES BOOK

John Jones.....	\$ 600
H. K. Potts.....	700
P. D. Downs.....	400
<hr/>	
Total Sales (Cr.).....	\$1,700

In posting the above, the three items would go simply to the debit of the Personal accounts named one by one, and at the end of the month these three Debits would be equalized in the Ledger by the corresponding Credit of \$1,700. Thus the Trial Balance would not be disturbed by any inequality of Debits and Credits.

What has been said in detail about the Sales Book could be said about each of the others; the plan that would secure economy of time and increased accuracy in one would apply equally well to the others. So we would find the Purchase Book producing a total to be debited to Purchases Account; Cash Received a total to be debited to Cash Account; Cash Paid, a total to be credited to Cash Account.

With a number of Books of Original Entry in use it is necessary to decide which book should receive the given entry you are working upon. The way to decide that is to reason out the debits and credits for the transaction in exactly the same way as if you were going to make a regular Journal entry for it. With the Debits and Credits that you want to have posted to the Ledger thus in mind you will decide which book to use by remembering what Debits and Credits accounting practice says shall be posted from those books, and by selecting the one which usually contains the Debits and Credits of your transaction.

The close relation of the Cash Received Book and Cash Paid Book, and the fact that both have to be used in finding the balance of Cash on hand at any time, leads to the practice of having them bound together, or, what amounts to the same thing, using only one volume by writing Cash Received entries on the left-hand page and Cash Paid entries on the right-hand page. This is a very convenient arrangement, and does not disturb in the least the postings as already described; the same accounts are Debited and Credited in detail and total from the one volume Cash Book, as from two separate Cash Books.

Later on we shall see the form of the Cash Book modified by the introduction of a number of extra money columns for the further segregation of like entries. At that time it will be pointed out in more detail that such an arrangement permits the accumulation of totals so that the quantity of posting is again reduced just as it is where Special Books of Original Entry replace a single Journal.

PROBLEMS—CHAPTER VI.

1. Use such exercises in the 20th Century Text as the teacher may indicate, and enter the transactions in four special Journals. The entries are to contain Debits and Credits just as every Journal entry does, but only transactions for Sales on account are to be entered in the Sales Journal, only Purchases of merchandise on account in the Purchase Journal, etc.

2. After the teacher has approved problem 1 above, make four new Journals for the same exercise, but in entering the transactions this time omit that part of each one which was constantly repeated in the entries made in problem 1.

Be prepared to explain how the posting from these new Journals will bring exactly the same *total* Debits and Credits to the Ledger as would the posting from the Journals in problem 1.

VII.

DIRECT CLOSING

Purpose of Closing. In Chapter IV it was pointed out that the profit earned by a business belonged to the Proprietor. It was also shown how the Net Profit on the Profit and Loss Statement must be brought into the Balance Sheet as an addition to the Proprietor's previous investment in order to cause the Balance Sheet to exhibit the true state of affairs at that particular time.

If the real fact is that the Proprietor's interest in the business on February 1 is more than the Ledger account for Capital Investment shows, it must follow that the account should be adjusted so it, as well as the Balance Sheet, may state the whole truth about Capital Investment. This can only mean that the Proprietor's Account in the Ledger must be increased by the amount of the profit made.

Since the profit is determined by the amount of the Sales, Purchases and Expenses, these are the accounts which must be brought into relationship with the Proprietor's Account in order to increase it by the amount of Net Profit.

Direct Closing. In order to see these nominal accounts transferred to the Capital Account, it is necessary to look at the Ledger as it now stands, and then to trace step by step the changes produced by the desire to assemble these several accounts in one place. The accounts we are interested in just now are as follows:

Purchases		Sales	
plus \$700	minus	minus	plus \$1,200
Expense		H. B. K. Capital Invested	
plus \$40	minus	minus	plus \$5,900

(The student should take a copy of these accounts on scratch paper and make the changes therein one by one as they are discussed in the text.)

METHOD I.

1. Bring the \$700 Purchases to the minus (Debit) side of Capital Account and it appears that Capital is temporarily reduced. With the \$700 now in Capital Account the Purchase Account is no longer useful; it should be brought to a "zero" condition by an entry of \$700 on the minus side. Here, then, is expressed a decrease to Purchases Account and a decrease to Capital; the \$700 value has been removed or subtracted from the former account and placed in the latter. (Note the peculiar way accounting expresses a subtraction within accounts through effecting a cancellation of an item by an *equal* entry on the apposite side of the *same* account.)

2. Bring the \$40 from Expense Account to the Capital Account in the same manner. This second step has the effect of transferring this other Recoverable Outlay also to the Capital Account. Now the Proprietor's Capital seems materially reduced by these entries, but we know the outlays were only temporarily advanced, and that the proprietor got his money back again almost at once.

During the month, as Sales were made and part of the costs and expenses recovered, the amounts received from Sales were assembled in the Sales Account. Now at the end of the period it is desired to bring these *Recovered* amounts into close comparison with the amounts advanced to see what the net effect upon the Proprietor's interest in the business has been.

3. Bring the \$1,200 Sales into the Capital Account on the increase side, thus setting it up in opposition to the costs already on the decrease side. Show the \$1,200 eliminated from the temporary Sales Account by placing another \$1,200 on the decrease side.

4. Whenever the two opposing sides of an account are equal (in balance, as we say), indicate the fact by ruling a double horizontal line across the account close up under the figures. This has the effect of shutting off the figures above the line so they will not be added in with any new figures for succeeding periods which may be posted to the account later.

5. As a last step, bring the Capital Account to a balance, rule it up, and bring the balance forward into the new period as in the illustration on the next page.

The Ledger now stands as follows:

Purchases		Sales	
plus \$700	minus \$700	minus \$1,200	plus \$1,200
Expenses		Capital	
plus \$40	minus \$40	minus Purchases, \$700 Expenses, 40 Balance, new Capital 6,360 \$7,100	plus Original \$5,900 Sales 1,200 \$7,100
			Present Invest- ment ... \$6,360

METHOD II.

Another method of closing these nominal accounts and transferring their balances into the Capital Account is to proceed through an *intermediate summary account*. For, it will be observed, the above Capital Account does not clearly show what the net increase to Capital is (i. e., the amount of the Net Profit). It is desirable to show this in the Ledger as one amount, and it is also desirable to avoid bringing many accounts (as in a large business) directly into the Capital Account. For these reasons a *Profit and Loss Account* is introduced to provide a convenient place of summarizing the nominal accounts and calculating the net profit to be carried as one figure to the Capital Account.

1. On a separate sheet of paper copy the accounts as they stand on page 46.

2. Open a new account headed "Profit and Loss".

3. Transfer the \$700 from Purchases Account to the Profit and Loss Account. (Note this principle: the amount transferred from any account whatever must appear in the new account on the same side, Debit or Credit, as the original amount stood in the original account.) Profit and Loss is debited \$700; Purchases is credited \$700. The original debit in Purchases Account (cancelled by the new, opposing entry) is now transferred to be a debit in the Profit and Loss Account—*once a debit, always a debit*.

4. Transfer in like manner the credit from Sales Account into Profit and Loss Account.

At this point we calculate the balance of the Profit and Loss Account before making further entries, in order to show the amount of the Gross Profit.

5. Calculate the Gross Profit, enter it as a balance on the smaller side, rule the account, and bring the balance down below the ruling.

6. Transfer the debit from Expense account by debiting Profit and Loss and crediting Expense. Rule off the accounts that now are in balance.

The nominal accounts are now closed off and ruled since their values are summarized in the Profit and Loss Account. The credit side (Gross Profit) is seen to be larger than the debit (Expense), and the conclusion is that a net profit has been made. The excess of credits over debits in this account (i. e., the credit balance) is the amount of net profit to be added to the Capital Account.

7. Transfer the Balance of the Profit and Loss Account to the Capital Account. Since the Profit and Loss credits are more than the debits, it will be necessary to introduce another debit to eliminate the balance and close off the Profit and Loss Account. Since Net Profit naturally *increases* the Capital Account, there must be a credit to that account of the same amount as was debited to Profit and Loss just now.

8. Calculate the Present Investment (Original Investment plus Net Profit); close the Capital Account and bring the Present Investment forward as before.

Profit and Loss				Capital	
Purchases \$700		Sales, \$1,200		Balance, Present Investment carried down ... \$6,360	Original Investment ... \$5,900
Balance, Gross Profit ... 500					Net Profit from P. & L. account 460
<u>\$1,200</u>		<u>\$1,200</u>		<u>\$6,360</u>	<u>\$6,360</u>
Expenses, \$ 40		Gross Profit \$500			
Balance, Net Profit, transferred to Capital, 460					Present Investment ... \$6,360
<u>\$500</u>		<u>\$500</u>			

Inventories. In the discussions up to this point it has been assumed for the sake of simplicity that all of the merchandise purchased was sold in the same period. This, of course, does not often happen in actual business, for some of last month's purchases have to be carried over into the next month or longer, and are sold in some subsequent period. The fact that some goods have to be carried over unsold makes a great deal of difference in the profits of a given period. No one can claim a profit until the *ownership* of the goods passes to another, so the method of calculating profits must be revised.

Where all goods are sold in the same period as they are bought, we may say that Sales less Purchases equals Gross Profits. But if some of the Purchases are unsold, we must say Sales less *Cost of Goods Sold* equals Gross Profit (i. e., that profit before deducting Expenses). Therefore, before finding Gross Profit it is necessary to make another calculation—one to find the Cost of Goods Sold.

Suppose in a given period we bought \$8,000 worth of goods, and at the end of the period found by actual count (i. e., by taking *inventory*) that \$2,000 of the purchases were still on hand. The conclusion would naturally follow that \$6,000 (\$8,000 less \$2,000) was the purchase cost of the goods sold. Then, if in the same period the sales amounted to \$10,000, the Gross Profit would be \$4,000 (\$10,000 less \$6,000).

If an Inventory of unsold goods exists at the time of summarizing and closing the nominal accounts, it must be considered as the very first step of the process. Before transferring the balance of Purchases Account to the Profit and Loss Account, the Inventory must be eliminated from the former so that the amount to be transferred will be the cost of goods sold. If the Inventory be taken out of purchases Account, it must be set up somewhere else, for one can not bodily abstract a portion of the amount in an account.

Since the Inventory is an amount of goods on hand, it takes on for the moment the characteristic of an asset. It will appear in the Balance Sheet as such, and should stand in the Ledger in a separate account. The procedure under these conditions will be as follows:

1. Transfer the value of the Inventory (taken at *cost prices*) from the Purchases Account to an "Inventory Account". This necessitates a credit (minus) to Purchases and a debit (as a plus to an asset) to Inventory Account. The balance then remaining in Pur-

chases represents the cost of that portion of the purchases which was sold.

2. Transfer this balance of Purchases Account (i. e., cost of goods sold) to the debit side of Profit and Loss.

The other steps in the closing process are identical with those already outlined.

Old and New Inventories. If we are working in *any but the first month* of a firm's existence, we will see that there is not only an Inventory of goods unsold at the end of that particular period, but that there is also an Inventory of goods on hand at the beginning of the month. There is an old and a new Inventory; next month the present new Inventory becomes the old one.

In order to calculate the Gross Profit, it is still necessary first to find the costs of goods sold in the given period; usually this calculation involves two Inventories. The goods we dispose of this month may have been bought *this month or last month*; they may have been sold from the old Inventory or from current purchases.

Suppose we sold all we had; then the cost of goods sold would be the old Inventory plus the purchase of this current month, and that figure deducted from the Sales would give the Gross Profit. But that condition prevails only in the *last* month of a firm's existence; the ordinary month will have a new Inventory at the end to be subtracted. Using some hypothetical figures, the calculation of an ordinary month's gross profit would be as follows:

Sales during the month.....		\$20,000
Old Inventory at beginning of month.....	\$ 8,000	
Add, Purchases during the month.....	14,000	
	<u>\$22,000</u>	
Deduct New Inventory at end of month.....	9,000	
Cost of Goods Sold.....	<u> </u>	13,000
Gross Profit.....		<u>\$ 7,000</u>
(Let it be noted that this shows the arrangement of a section of the Profit and Loss Statements as it appears when there are some inventories to be included.)		

We have to note how these additions and subtractions are secured in the Ledger and how the adjustment of the accounts results in the calculation of the Profit directly in the Ledger accounts.

The student should copy these accounts as before, and make the adjustments as they are described. The accounts as they stand at

the close of last month (after following instructions on page 50) would be as follows:

Inventory		Purchases	
from Pur. a/c\$8,000		Bought, \$15,000 =====	to inv. a/c \$8,000 to P/L a/c 7,000 =====
Sales		Profit and Loss	
to P/L a/c\$17,000 =====	Sold\$17,000 =====	Cost\$ 7,000 to Cap. a/c 10,000 =====	Sales\$17,000 =====

All of the accounts we need to consider here will be seen to be blank below the ruling, except Inventory account, for, being ruled at the end of last month, they are, to all intents and purposes, void of figures now.

Assume the Purchases of this current month to have been \$14,000 and the Sales \$20,000. Enter the amounts in the accounts as if they had been posted there. We are now ready to close.

1. Transfer the old Inventory (\$8,000) back to the Purchases Account. It will now appear canceled out of the Inventory Account and set up as a debit to the Purchases Account to be added in with the goods purchased during *this current month*. The debit side of the Purchases Account now shows the total cost of *all goods* offered for sale regardless of when they were purchased.

2. The new Inventory is found by an actual count of the articles on the shelves to be \$9,000. Transfer this Inventory from the Purchases Account to the Inventory Account by crediting Purchases and debiting Inventory. The balance remaining in the Purchases Account now shows the true cost of goods sold. (Compare with the section of the Profit and Loss Statement on page 51).

3. Transfer this cost of goods sold to the Profit and Loss Account; transfer Sales and Expenses, and proceed from this point as previously instructed.

The accounts as readjusted in closing as above outlined for two Inventories are as follows. The values for the second period are in italics :

Inventory		Purchases	
From Purchases a/c \$8,000	Return to Purchases a/c \$8,000	Bought \$15,000	To Inventory a/c \$ 8,000
=====	=====	=====	To P & L a/c 7,000
From Purchases a/c 9,000		From Inventory a/c \$ 8,000	To Inventory a/c \$ 9,000
		Bought 14,000	To P & L a/c 13,000
		=====	=====

Expense			Sales		
Cost	\$1,200	To P & L a/c	To P & L a/c	Sold	\$17,000
	=====	\$1,200			=====
<i>Cost</i>	1,800	<i>To P & L</i> <i>a/c</i>	<i>To P & L</i> <i>a/c</i>	<i>Sold</i>	\$20,000
	=====	1,800			=====

Profit and Loss

From Purchases a/c	\$ 7,000	From Sales a/c	\$17,000
Balance, Gross Profit	10,000		
=====			
From Expense a/c	1,200	Gross Profit down	10,000
Net Profit, to Capital a/c	8,800		
=====			
From Purchases a/c	13,000	From Sales a/c	20,000
Balance, Gross Profit	7,000		
=====			
From Expense a/c	1,800	Gross Profit down	7,000
Net Profit, to Capital a/c	5,200		
=====			

Capital

Balance forward	\$33,800	Original investment	\$25,000
		From P & L a/c	8,800
	=====		
	33,800		33,800
	=====		
Balance forward	39,000	Present Capital	33,800
		From P & L a/c	5,200
	=====		
	39,000		39,000
	=====		
		Present Investment	39,000

PROBLEMS—CHAPTER VII.

1. Below are tabulated the essential facts about the nominal accounts of a business of four successive periods. First, on Ledger paper open the necessary blank accounts; then, second, *one month at a time*, place the Purchases, Sales and Expenses values in the accounts as if posting, and then, third, close the accounts for the month. Proceed in like manner for the second month, then the third, and then the fourth.

What is the present capital at the end of the four months, if the original Investment was \$10,000?

	Beginning	Closing	Month's	Month's	Month's
Month	Invty.	Invty.	Purchases	Sales	Expense
Jan.	\$5,000	\$9,645	\$ 8,296	\$14,642	\$ 900
Feb.	9,645	8,471	11,318	12,978	1,200
Mar.	8,471	6,272	16,684	16,491	1,687
Apr.	6,272	7,448	13,841	18,296	1,407

VIII.

JOURNAL CLOSING

The previous discussion of closing does not pretend to portray the procedure found in practice. It has already been pointed out that no entries are made directly in the Ledger and closing entries are no exception. But it should be remembered that Journal Entries of any kind express debits and credits, and that debits and credits can be determined only by thinking of accounts. Therefore, no matter what the entry, it is to be constructed with the Ledger accounts in mind. When we have decided what change has occurred to the accounts it is an easy matter to construct a Journal Entry to record our decision. But the accounts have to be *thought out first*; the Journal Entry only *records* our judgment.

So the discussion of closing the nominal accounts directly in the Ledger has shown the way the steps must be thought out. Now to get those changes made in the accounts according to the very strict accounting practice, they must be entered in a book of original entry and posted.

The form of ordinary Journal Entry is already in mind; we have but to decide the debits and credits for each step, arrange them in the customary way and post. Using the example on pages 52 and 53, the several steps would become Journal Entries as follows:

1—Purchases	\$ 8,000	
Inventory		\$ 8,000
to transfer last months' inventory to Purchases Account.		
2—Inventory	9,000	
Purchases		9,000
to transfer the present inventory out of Purchases Acct. into an account of its own.		
3—Profit and Loss.....	13,000	
Purchases		13,000
to transfer the cost of goods sold (bal- ance of Purchases Account) to the Profit and Loss Account.		
4—Sales	20,000	
Profit and Loss.....		20,000
to transfer the balance of Sales Account to Profit and Loss.		

5—Profit and Loss.....	900	
Expense		900
to transfer Expense into Profit and Loss.		
6—Profit and Loss.....	6,100	
Capital Investment.....		6,100
to transfer the net profit (balance of Profit and Loss Account) to Capital.		

It must be clearly understood that these entries should not all be made at once. We can not make entry 3, for example, before entries 1 and 2 have been made and *posted*, for those net values have to be used in calculating the \$13,000 for entry 3. Hence the following suggestions:

1. Reason out the debit and credit you want brought into the accounts as the first step in the series.
2. Make a Journal Entry for them.
3. Post this first entry before constructing the next.
4. Reason out the next step of summarizing the nominal accounts, using, when necessary, the values now in the accounts which were changed by the preceding entry or entries.

And so on, step by step, through the whole series, until all nominal accounts are closed and their contents summarized in the Profit and Loss Account and it closed to the Capital Account.

Often it is desirable to be able to make closing Journal entries with only a Trial Balance before you. It is not difficult if you have the accounts involved quite clearly in mind or construct memorandum accounts on scratch paper as you go along.

PROBLEMS—CHAPTER VIII.

1. Construct closing Journal Entries for the problem at the end of Chapter VII, and post them to memorandum Ledger accounts as you go along. This concurrent posting is necessary because some of the values to be used in the closing entries are the balances of these accounts.

2. From the facts given in the Trial Balances which the teacher will select from the text book, make the Journal Entries necessary to close the Ledgers from which the Trial Balances presumably were taken.

IX.

MONTHLY ADJUSTMENTS

It is one of the outstanding principles of accounting that *profit is earned when the service is rendered* for which the profit is a payment, rather than when the cash is received. This principle arises in our understanding of profit as the gain coming to the business man as his compensation for the service he performs in making or supplying the goods.

Deferred Income. When we sell goods on account for, say, \$800, the credit to Sales represents an earning of this period; the debit to Accounts Receivable represents, in a way, a "deferred cash collection". When we receive money for a sale in advance of the actual transfer of the things sold, or in advance of actually performing all of the services agreed upon, then we debit Cash to record the increase in our balance on hand and the credit we place in a Deferred Income Account. This is not closed like a Sales Account into Profit and Loss, for be it noted, it does not contain Profits (or Earnings) of this month; we have not earned our compensation for we have not yet done our part. We must see in the Deferred Income Account something of a Liability, for it represents an *obligation* to perform a service which we are bound to carry out because of having already been paid for it.

As an example of Deferred Income we can refer to the Members' dues of a club or society. Suppose the dues are \$60 a year; being paid at one time, they give the member all privileges for twelve months. If accurate accounting is to be had by the club of the costs for each month, and the income available each month to defray those costs, provision must be made for distributing only \$5 of the \$60 to the Profit and Loss Account for each month.

When a member pays in advance, Cash is debited \$60 and Deferred Income (or Dues account) is credited. As each month comes to an end 1-12 of the \$60 is transferred to the Profit and Loss Ac-

count to offset the Expenses, which will also be closed into the same account. The entry each month should be:

Dues Account (or Deferred Income Acct.).....	\$5	
Profit and Loss Account.....		\$5
to transfer 1/12 of the year's earnings into the Profit and Loss Account for the current month.		

This entry would accomplish the results desired. \$5 would be taken from the Deferred Income Account by the debit (decreasing) entry and added to the Profit and Loss Account by the credit entry. There would remain a balance of \$55 in the Deferred Income Account to evidence the Liabilities for service to members still to be performed. Other examples of deferred income are not hard to find in some lines of business, such as newspaper and magazine publishing, for example; but they do not frequently appear in the ordinary mercantile business.

Deferred Charges. A companion principle to the one which opened this chapter is this: An expense or *a cost is incurred in the period receiving the benefits* regardless of the time of the cash payment. When we acquire merchandise in a given period it is considered in that period's calculation of Profit and Loss whether it has been paid for yet or not; the same can be said, of course, about expenses. If electric light is used, its value is recoverable out of current profits in spite of the fact that the cash is not paid to the Light Company until later. What would be the situation if we had paid for our expenses in advance—paid for a year's electric current, say?

Clearly we would have a valuable right outstanding against the Light Company which they would have to discharge month by month as we wanted to use electricity—in a word, we have here something closely akin to an Asset, though not one in truth. What we do have is a Deferred Charge—an expense paid in advance.

As in the case of Deferred Income, period by period the proper portion of the Deferred Charge is transferred to some Expense account (and thence to Profit and Loss), while the balance remaining is carried forward in the account (and in the Balance Sheet) to the next period, there to be further reduced, and so on to the end.

One of the most commonly met examples of Deferred Charges is supplies, like paper, advertising matter, ink, etc., which are often bought in larger quantities than the needs of one period would require. Another common Deferred Charge is unexpired insurance.

There are two ways of dealing in the accounts with facts of this kind, either of which is good if consistently followed. Take Insurance as an example. We may have the Insurance Account classed as an Expense. In this case the balance would be one to be transferred to the Profit and Loss Account at the end of the month. Should there be any unexpired insurance in this account it will have to be removed before the account is closed. The entries in their sequence are—

(1)		
Insurance	\$ 1,200	
Cash		\$ 1,200
Insurance premium paid for year in advance		
(2)		
Deferred Charges.....	1,100	
Insurance		1,100
to transfer 11/12 of the Insurance Account to a Deferred Charges Account at the end of the first month.		
(3)		
General Administrative Expense.....	100	
Insurance		100
to close the balance of Insurance Account into Expense.		

If this method be followed, the unexpired insurance will have to be brought back to the Insurance Account after the latter is closed and ruled so the process can be repeated in the next period just as merchandise Inventory is restored to the Purchases Account.

On the other hand, we may choose to regard Insurance Account as being itself in the nature of a Deferred Charge Account—i. e., the balance shall represent the amount of insurance unexpired. In order to keep the account according to these designated characteristics, it is only necessary to remove the amount of *expired* insurance at the end of the period by Journal Entry. The sequence here is as follows—

(1)		
Insurance	\$ 1,200	
Cash		\$ 1,200
Insurance premium paid for year in advance.		
(2)		
General Administrative Expense.....	100	
Insurance		100
to transfer to Expense the expired portion of Insurance.		

The \$1,100 balance remaining in Insurance Account is the amount unexpired and carried in the books into the next period.

As far as Insurance Account is concerned, this latter is the simpler treatment, but it should not be followed for that reason if it is inconsistent with the treatment accorded other Deferred Charges, such as supplies. If supplies are treated first as expenses (debited to Expense), and later adjusted by the removal of the unused portion, the treatment of insurance should be similar. Either that or supplies should be treated like insurance in the second illustration above. Similar accounts should receive similar treatment.

Adjustments are made for Deferred Charges and Deferred Income in order to carry over prepaid items into the subsequent period where they are used. There are adjustments also in the case of services, etc., used in the current period but paid for in later periods. These are discussed next.

Accrued Liabilities. Wages, for example, and Interest, accumulate day by day, but for convenience are charged to Expense when paid rather than daily. Wages are paid usually once each week; Interest whenever the interest-bearing note is paid. Now if the end of the month falls between pay days or between payments of interest, a certain amount of wages or interest will have accumulated unpaid. These accrued wages, etc., are as much a part of the costs of the period just closed as if they were paid in cash, for the services of the employees has been rendered within the current month. It will be noted, too, that since the work has been done, the employees are owed the wages even though the money be held back until Saturday. To the business, then, there is a direct liability not yet expressed in the accounts.

Before closing at the month end, an adjustment entry is to be made to set up these unrecorded liabilities and to bring the unrecorded costs into the nominal accounts while the accounts are still open. The entry for accrued wages not due is as follows:

Expense (or proper sub-expense account) \$	200	
Accrued Liabilities		\$ 200.
to set up wages accrued but not due for the three days, Aug. 29, 30, and 31.		

Any other liabilities not recorded on the books are brought in at this time in a similar entry or as a part of this one.

Accrued Assets. As one would expect, there are also certain adjustments to be made for accumulating Assets which are not yet due. Interest, commission earned by us, etc., accrue day by day, but

like wages, are not brought into the accounts daily because of the necessary inconvenience of doing so. When the end of a period is reached, however, such items must not be overlooked. Take commissions due us, for example; it may be the agreement that they shall be settled for only once in three months. At the end of the first month there is an amount accrued because the selling service has been performed but the payment is not due because of the three-month agreement. Our accounts can not express the whole truth of the present situation unless an adjustment be made to increase the earnings of this month by the amount of the commissions and to increase the Assets by the amount to be paid to us at a later date. The entry would be:

Accrued Assets.....	\$ 400	
Commission Earned.....		\$ 400
to bring into the current period the earnings from commissions not yet due or collectible.		

Other accrued Assets would be adjusted through this or a similar entry.

The following series of entries will show the sequence of adjustments for one type of transaction; but it may be used as a guide for other types of adjustment transaction at will. It will be well in studying this series of entries to open memorandum accounts and post each step as it is taken so the slowly effected alteration in the Ledger may be observed.

(1)	July 12		
	Selling Expense.....	\$ 2,000	
	Cash		\$ 2,000
	20,000 advertising circulars purchased.		
(2)	July 31		
	Deferred Charges.....	1,800	
	Selling Expense.....		1,800
	18,000 circulars unused and carried over to subsequent periods.		
(3)	July 31		
	Profit and Loss.....	200	
	Selling Expense.....		200
	to close the remainder of Selling Expense Account to the current Profit and Loss Ac- count.		

Step (1) shows the acquisition of Expense Material; step (2) the removal of the unused portion; step (3) the removal of the used portion; since the unused circulars are to be used in later months it is not unnatural that they should soon be restored to the Expense account for the next month. That is step (4) of the sequence.

(4)	Aug. 1 (or July 31)	
	Selling Expense.....	\$ 1,800
	Deferred Charges.....	\$ 1,800
	to restore the unused circulars to the Expense Account after it is closed for July.	

Entry (4), as far as it affects Selling Expense, is identical with the record of a fresh purchase during the month of August. Indeed, it may help to think of the adjustment as showing a purchase of circulars by one period from the preceding one. Again it may help to think of these adjustments as a special form of Inventory handed on by one period to be used in the next.

After entry (4) the series would begin again and follow the same course. A typical Selling Expense Account would be like the following:

Selling Expense	
July 12—Circulars purchased \$2,000	July 31—Unused circ. deferred\$1,800
	July 31—Closing used circ. to P/L a/c..... 200
Aug. 1—Unused circ. from July 1,800	Aug. 31—Deferred Selling Exp. 1,500
Aug. 14—Other Selling costs. 3,000	Aug. 31—Close Balance to P/L a/c..... 3,300
<u>\$4,800</u>	<u>\$4,800</u>
	Etc.

It is equally easy to think of Deferred Income as a special kind of Inventory of Incomes which is removed temporarily from the current period's income account, carried in a special account by itself while the books are being closed, and then restored to the Income account for the month following. It may help to think of Accrued Assets in the light of a special kind of earning or sales on account later to be received in cash; it may help to conceive Accrued Liabilities as a kind of purchase or expense on account later to be paid in cash. But the principal guide of making adjustment entries is this: **Make whatever debits and credits are necessary to raise or lower costs, earnings, assets or liabilities to the true amount according to the best information at hand.**

Reserves. There is one other matter to be considered while on the subject of adjustments to secure true costs, and that is reserves.

We know that with constant use our Fixed Assets of Buildings, Machinery, etc., wear out, and we know, too, that it is quite likely some of our Accounts Receivable will never be collected in cash. If it were merely a question of waiting to make the necessary adjustment until the machine was worn out, or until John Hamilton's account proved uncollectible, the explanation would be short and easy. We should simply eliminate the worthless asset by decreasing the account and charging the amount against profits.

But we are to note that the wear and tear on Buildings and Machinery from their being used goes on month by month; that they contribute day by day to the care and disposition of everything we sell; that the wearing out of machines is as much a cost as a rent for them would be. And we are also to note that an uncollectible Account Receivable is quite as much a loss and a reduction of the profits as the destruction by fire of the original goods would have been.

The depreciation of Fixed Assets is in the nature of a Selling Expense if the particular asset suffering wear and tear is used in promoting sales; if the asset cannot be intimately connected with selling, the Depreciation is considered as a General Administrative Expense. An uncollectible debt may be brought into a new account, Loss on Doubtful Accounts, and through it, closed into Profit and Loss Account.

Perhaps the natural entry to express Depreciation would be this:

General Administrative Expense.....	\$ 100	
Machinery		\$ 100
to take out of Machinery Account the amount representing the portion of the value of the machine consumed in wear and tear in the current period.		

It would seem logical thus to decrease the balance of Machinery Account month by month as it wore out. But business men prefer to keep the original cost of the Fixed Assets unchanged in the accounts as a matter of record. This means that depreciation can not well be credited to the asset direct. What we do in this situation, and to have the costs correct, is to provide a separate account which shall *take the place* of the credit side of the Asset. The credits of the adjusting entry for depreciation comes to this Reserve for Depreciation Account just as if the new account was the split-off credit side of the Asset Account.

In the Balance Sheet the Reserve (credit balance) is deducted from the Asset (debit balance). The resulting remainder is the pres-

ent value of the machinery as clearly as if the Machinery Account itself had received the depreciation credits.

Perhaps it would seem logical also to credit Accounts Receivable for uncollectible accounts. But let it be noted that to follow this plan we would have to wait until long after the sale of the goods. The profits of that later period should not bear the burden for the bad debts contracted in an earlier period merely because the debt is just now ascertained to be uncollectible.

Actuated by the desire to show in each current period all costs and losses reasonably belonging in that period, we deduct from current profits an amount which experience tells us will approximate the actual loss from bad debts later to be experienced. Instead of crediting the Accounts Receivable Account at this time, the amount is carried to the Reserve for Uncollectible Accounts. We could not credit Accounts Receivable, for no one can tell now which of the several customers' accounts will ultimately prove uncollectible, though we may be fairly certain that in the long run about, say, one per cent of the sales will be lost from bad debts.

There are, then, two other adjusting entries to be made in addition to the ones for accrued and deferred items and before closing the nominal accounts. The two others are these:

General Administrative Expense.....	\$ 140	
Selling Expense.....	80	
Reserve for Depreciation.....		\$ 220
to charge depreciation on Fixed Assets into the current period's expense.		
Loss on Bad Debts.....	200	
Reserve for Bad Debts.....		200
to establish a reserve of percent of the current sales to cover future losses in col- lections.		

PROBLEMS—CHAPTER IX.

1. Open Ledger accounts for such exercises as the teacher may select from the text book; make proper adjusting Journal entries according to the information at hand; post the adjusting entries; take a Trial Balance.

2. Make closing entries and statements for the exercises in problem 1 above.

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